

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013117**Date Inspected:** 19-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 9EW

This QA Inspector performed two (Caltrans QA and ABF QC) party joint Survey Inspection for the following Segment 9EW from Panel Point 82.25 to 85.25.

Corner Assembly Cope Holes dimension measurements at PP 82.5, PP 83, PP 83.5, PP 84, PP 84.5 and at PP 85 Cross Beam and Counter Weight side.

Flatness measurement for Floor Beam at PP 83, PP 84 and PP 85 Cross Beam and Counter Weight Side.

Flatness measurement for Deck Panel to Corner Assembly from PP 82.25 to PP 85.25 Cross Beam and Counter Weight side.

Flatness measurement for Side Panel to Corner Assembly from PP 82.25 to PP 85.25 Cross Beam and Counter

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Weight side and

Plumbness and Flatness measurement for Deck Panel to Deck Panel Diaphragm at PP 83, PP 84 and PP 85 East and West side of the Diaphragm.

The recorded measurements submitted to lead as well to the engineer for further action.

Segment 8AW

This QA Inspector performed Inspection along with Caltrans QA Mr. Manikandan for the following Segment 8AW from Panel Point (PP) 61, PP 62, PP 63 and PP 64 for the following items.

Deck Panel Diaphragm to Deck Panel Plumbness and Flatness measured from the East side and the recorded measurements submitted to lead as well to the engineer for further action.

Segment 7AW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Catwalk at Bottom Panel from Panel Point (PP) 47.5, PP 48 and PP 49 for Segment 7AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00323 Dated April 19, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-114. Please refer the pictures for more comprehensive detail.

Segment 7BW (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Catwalk at Bottom Panel from Panel Point (PP) 50, PP 51 and PP 52 for Segment 7BW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00323 Dated April 19, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-114.

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Segment 7CE (Upper and Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final tension verification for Upper and Lower Chevron (North and South side) at Panel Point (PP) 53, PP 54 and PP 55 for Segment 7CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00323 Dated April 19, 2010.

Bolt sizes used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666.

Segment 7DE (Upper and Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final tension verification for Upper and Lower Chevron (North and South side) at Panel Point (PP) 56, PP 57 and PP 58 for Segment 7DE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00323 Dated April 19, 2010.

Bolt sizes used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666. Please refer the pictures attached for more comprehensive details.

Segment 7EE (Upper and Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final tension verification for Upper and Lower Chevron (North and South side) at Panel Point (PP) 59 and PP 60 for Segment 7EE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00323 Dated April 19, 2010.

Bolt sizes used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m.

Bolt sizes used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-666.

General Note: Upper and Lower Chevron for Segment 7CE, 7DE and 7EE M22x80 bolts (at lower chevron) and 4 bolts (at upper chevron) manual wrench inaccessible areas bolts tension not performed as hydraulic machine was not available.

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Segment 9DE

This Quality Assurance (QA) Inspector during random visual inspection observed that at Segment 9DE Deck Panel extension (for connecting with CB 12) had received deformation ranging from 33mm to 37mm when measured with string line with 5000mm long, and 10mm to 12mm when measured with 1000mm Straight Edge. Please refer the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
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Reviewed By:	Miller,Mark	QA Reviewer
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